

REMARKS

In response to the Office Action mailed September 8, 2008, Applicants have amended claims 9, 12, 13, 14, 15, 17, 19, 21, 24, 32, and 40 by this paper. After entry of this paper, claims 9-43 remain pending in the application.

Claim Rejections under 35 U.S.C. §102(b)

In the Office Action dated September 8, 2008, the Examiner has rejected claims 9-43 as being anticipated by U.S. Patent No. 6,130,517 to Yuan et al. ("Yuan"). Applicants respectfully disagree with the Examiner's assertions in the Office Action. However, to expedite the examination, Applicants have amended the independent claims 9, 12, 13, 14, 15, 17, 19, 21, 24, 32, and 40 by this paper.

Claim 9

With respect to claim 9, the Office Action equates "the CMD in Fig. 8 and Fig. 9, combined with the controller 210, and 220" to the actuator of claim 9. (See Office Action, p. 11) Applicants respectfully disagree with the Examiner's assertion. Yuan discloses that CMD 320 is a command circuit, "such as a digital signal processor or micro-processor [that] generates a command signal indicating the desired position of fine stage 200." Yuan at 7:59-63 (see also 6:61-65). The controller 210 is a "conventional proportional-integration-derivative ('PID') circuit[, which] generates a force signal F indicating the force required to produce the necessary acceleration to drive fine stage 120 to the desired position." *Id.* at 6:66-7:4. Controller 220 is "a non-linear compensator circuit, such as a digital signal processor or micro-process." *Id.* at 7:7-9.

Claim 9 recites "an attracting framework comprising opposing attracting members." Claim 9 also separately recites that "[an] actuator is capable of directly

moving the fine stage device relative to the coarse stage device.” CMD 320, PID circuit 210, and compensator circuit 220 merely provide signals or currents to the e/i core actuators, but cannot directly move the first assembly as required by claim 9. *Id.* at 6:55-7:12. Therefore, CMD 320, PID circuit 210, and compensator circuit 220 cannot be equated to the actuator as recited in claim 9. Applicants respectfully submit that Yuan fails to disclose an actuator that is capable of directly moving the fine stage device relative to the coarse stage device.

Claim 12

Claim 12 recites a similar aspect “[an] actuator [being] capable of directly moving the first assembly” As discussed above with respect to claim 9, CMD 320, PID circuit 210, and compensator circuit 220, which were equated to the actuator in the Office Action, cannot directly move the first assembly as required by claim 12, and thus cannot be equated to the actuator as recited in claim 12.

Furthermore, the Office Action cites to col. 3, lines 54-58 in Yuan as disclosing that the fine stage moves at a constant velocity. Office Action, p. 4. However, claim 12 recites “during a constant velocity phase, the actuator changes a gap size between the target member and an attracting member....” Nowhere does Yuan teach that when the fine stage is at a constant velocity, an actuator changes a gap size between the target member and an attracting member. The Office Action states that “this occurs when target 120 moves to the right ... and stage 110 simultaneously moves to the left” *Id.* However, the Office Action fails to point out where Yuan teaches that happens during a constant velocity phase. In a prior Advisory Action dated June 30, 2008, the Examiner stated that, in Yuan, “during the change of gap size to accomplish correction back to

400 um, the velocity of the stage will necessarily undergo a time period, however small, of constant velocity.” Advisory Action, p. 2. However, the Examiner fails to explain why it is necessary that the stage goes through a constant velocity phase while changing the gap size. Nor does the Examiner point out where Yuan teaches such features.

Applicants respectfully submit that Yuan fails to disclose “during a constant velocity phase, the actuator changes a gap size between the target member and an attracting member...” as recited in claim 12.

Claims 13, 14, 15, 17, 19, 21, 24, 32, and 40

Claims 13, 14, 15, 17, 19, 21, 24, 32, and 40 each have been amended to recite a similar aspect that an actuator is capable of directly moving a target assembly (or target member, or fine stage) relative to an attracting assembly (or attracting members, or coarse stage). As discussed above, Yuan fails to teach such an actuator. Therefore, these independent claims are patentable over Yuan.

Dependent claims 10, 11, 16, 18, 20, 22-23, 25-31, 33-39, and 41-43 provide further aspects in addition to those in their respective base independent claims and thus should be allowable for at least the reasons as set forth above with respect to the independent claims.

Conclusion


In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

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By: 
Weiguo Chen
Reg. No. 61,878
(650) 849-6729